

REMARKS

Claims 1-3, 5, 8-11, and 14-18 are pending in this application. Five claims 14-18 have been added. Five claims 4, 6, 7, 12, and 13 have been canceled. Claims 1, 2, 8, 10, 11 and 14 are independent.

Claim Objection

Claim 5 has been objected to. The Office Action states that the applicant seems to consider the claim as being an independent claim, and all limitations should be recited in the claim instead of referring to a claim. Applicants disagree.

Applicants submit that the claim is clear. In any case, for the sake of meeting the Examiner's preference, claim 5 has been re-written into independent form. Applicants request that the objection be withdrawn.

Claim Rejection – Daisuke

Claims 4-13 have been rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Application Publication 2002-125008A (Daisuke). Claim 4 has been replaced by new claim 14. Claims 6 and 7 are now new claims 15 and 16. Claims 12 and 13 are now new claims 17 and 18.

Arguments for claims 4, 6, 7, 12, and 13 will be addressed with respect to the corresponding new claims. Claim 14 (formerly claim 4) is directed to a code-reading terminal comprising an "imaging device" (e.g., camera portion 21), a "data identifying unit" (e.g., data identifying function 19a of CPU 19), and a "control unit" (e.g., CPU 19). The "imaging device"

images encoded data including a header portion and a body portion (Fig. 3). The header portion includes a data identifier indicating the type of data in the body portion (“D” in Fig. 3). The “data identifying unit” recognizes the data identifier from the image of the data identifier imaged using the imaging device and estimates the type of encoded data imaged by the imaging device based on the recognized data identifier (Fig. 4). The “control unit” reads the contents of the encoded data in a manner suited for the type of data estimated by the data identifying unit and reproduces the thus read data (Fig. 4).

The Office Action alleges that Fig. 3 of Daisuke shows a header portion as ID section 203 and a body portion as code section 202. The Office Action further states that a data identifying unit would be inherent to process the ID code having the details of the code (and also refers to fig. 10; see Final Office Action, page 2, last three lines at the bottom of the page).

Applicants agree that Figure 3 shows a cyber code having a code section 202 and an ID section 203, which is not part of the cyber-code. However, Applicants disagree that Daisuke teaches or suggests the claimed “data identifying unit.”

In embodiments of the present invention, an imaging device performs imaging of both a header portion containing the data identifier and a body portion. Given the images of the header portion and the body portion, a data identifying unit performs image recognition in order to recognize the data identifier from the imaged data identifier, and estimates the type of encoded data based on the recognized data identifier. Provided the data identifying unit, a code-reading terminal of the present invention can read and reproduce different types of encoded data. For example, the present invention, unlike Daisuke, is able to determine whether or not the encoded

data is encrypted even though it is not readily apparent to a user whether the data has been encrypted. This feature of the present invention provides an additional level of security.

Daisuke, on the other hand, requires that the type of encoded data be known to the user. Applicants submit that Daisuke does not teach or suggest at least a data identifying unit that recognizes the data identifier using an imaged data identifier provided by the imaging device.

In Daisuke (based on the machine translation), only the cyber-code itself (code section 202) is picked-up by the CCD camera (paragraph 0043). The ID section 203 is not part of the cyber-code. The ID section contains a 24 bit hexadecimal version of the code section 202 (paragraph 0028). The ID section 203 is not disclosed anywhere else in Daisuke, and is thereby not used by Daisuke's invention. In other words, Daisuke's invention does not pick-up an image of the ID section 203, and thereby does not recognize the ID section 203. Furthermore, Daisuke's invention does not make a determination of the type of code based on a recognized ID section. Instead, given that the ringer tone data is cyber-code, Daisuke's invention makes a determination as to whether the cyber-code 202 is either not recognized correctly (fig. 7(b)), or recognized correctly (fig. 7(c)). When recognized correctly, the bit information on the recognized cyber-code is extracted and temporarily stored in memory (paragraph 0044).

Thus, unlike Daisuke the present invention includes an additional "data identifying unit" that performs pattern recognition to recognize the data identifier in order to estimate the type of encoded data. In Daisuke, on the other hand, the data type is known in advance by the user via the logo 201 or ID portion 203. In addition, since Daisuke's invention pertains to reading a known type of data, the cyber-code, Daisuke does not require a determination of the type of data.

Thus it is apparent that Daisuke does not disclose a step or function to 1) pick-up the ID section 203 as well as the cyber-code and 2) recognize the ID section 203 given a picked-up image, and estimating the type of information in the code section 202 based on a recognized ID section 203.

In particular, Applicants submit that Daisuke fails to teach or suggest at least the claimed “imaging device for imaging encoded data including a header portion and a body portion”, “data identifying unit that recognizes the data identifier from an image of the data identifier” and “estimates the type of said encoded data based on said recognized data identifier”, and “control unit that reads the contents of said encoded data in a manner suited for the type of data estimated by said data identifying unit and reproduces the thus read data.”

Similar arguments apply as well to the claims 8 and 11.

Accordingly, Applicants request that the rejection, as applied to new claims 14-18 (replacing claims 4, 6, 7, 12, and 13, respectively), and claims 5, 8, 9, 11, be reconsidered and withdrawn.

Further with respect to claim 13 (now new claim 18), Applicants submit that Daisuke fails to teach at least the claimed feature of said “data identifying unit determines whether the type of the encoded data is either ring tone data or data other than ring tone data based on the recognized data identifier, and if the encoded data is determined to be data other than ring tone data, the data other than ring tone data is displayed on the display unit by said control unit.

The Office Action alleges that figure 7c shows this claimed feature of claim 13. Applicants disagree. Figure 7c shows a message “registration of a ringer tone was completed,”

which is displayed when a cyber-code has been recognized correctly (paragraph 0038). This message is not at all related to the ID section 203. As mentioned above, Daisuke does not include an identifying unit that determines the type of data contained in the body portion because the disclosed invention only recognizes cyber-code. Daisuke does not recognize data other than cyber-code. In fact, if the code is not recognized as cyber-code, a message such as that in Fig. 7(b) is shown, which states, "reinput since you were not able to read correctly."

For at least this additional reason, Applicants submit that Daisuke fails to teach each and every feature of claim 18 (formerly claim 13).

Conclusion


In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No. 48,222) at the telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

RWD
By 
Terrell C. Birch
Registration No.: 19,382 #4071
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicants